

REMARKS

Claims 1-23 were pending. In this Reply, no claims are amended. Claims 1-23 remain pending in the present application. Applicants submit that claims 1-23 are allowable, as discussed below.

Summary of the Office Action

Claims 1, 2, 4, 5 and 12 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Application Publication No. 2003/0004859 to Shaw et al. (hereinafter "Shaw") in view of U.S. Patent No. 7,162,447 to Cushing (hereinafter "Cushing").

Claims 6-11 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw in view of Cushing and further in view of U.S. Patent Application Publication No. 2003/0093343 to Huttenlocher et al. (hereinafter "Huttenlocher").

Claims 3 and 13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw in view of Cushing and further in view of Official Notice.

Claim 14-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw in view of Cushing.

Claims 20-23 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Huttenlocher in view of Cushing.

Applicants respectfully traverse these rejections for the reasons discussed below.

35 U.S.C. § 103(a)

Applicants recognized deficiencies in the then-existing technology, in explaining in applicants' specification that:

Brokers may receive crossing not held orders on the buy and sell sides, and find themselves in the position of having to choose a fair price to execute the crossed trade, somewhere between the limits of the two orders. Discretion is normally used when handling such a situation. . . . This human intermediation comes at a steep price, both in terms of commissions paid and in terms of information leakage to individuals who have close relationships with aggressive trading firms such as hedge funds.

Existing automated trading systems have addressed these deficiencies in various ways, but none address them in the same way as applicants' disclosed technology: "enabling market participants

... to receive immediate executions when matching orders are found, priced as close to a published reference price such as the National Market midpoint (or other reference price) as the two orders' limits will permit.” (Applicants’ specification as filed, p.5, lines 2-5).

Claims 1-13

In accordance with the foregoing, applicants’ independent claim 1 recites, among other things:

1. A method for facilitating trading of securities over a computer system, comprising the steps of:
 - electronically receiving market data including prices for a security;
 - calculating a reference price for said security based at least partially on said market data;
 - ...
 - executing a trade comprising said first order and said second order at a trade execution price, wherein said trade execution price complies with said first price limit and said second price limit, and wherein said trade execution price is calculated to minimize a difference between said reference price and said trade execution price.

In the July 22, 2008 Office Action, claim 1 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw in view of Cushing. Applicants traverse this rejection for the reasons below.

Neither Shaw nor Cushing shows applicants’ feature in claim 1 of “executing a trade comprising said first order and said second order at a trade execution price, wherein said trade execution price complies with said first price limit and said second price limit, and wherein said trade execution price is calculated to minimize a difference between said reference price and said trade execution price.” In page 3 of the Office Action, the Examiner recognized that Shaw fails to show or suggest this feature of claim 1. The Examiner attempts to cure this deficiency in Shaw by combining Shaw with Cushing, but Cushing also fails to show or suggest this feature of claim 1. Cushing is directed to:

[An] auction system [that] takes into account each order and its impact upon relative supply and demand to determine by a preset algorithm an optimal price and share transaction quantity. . . . Trades are executed at the optimal price, and portions of the transaction quantity are allocated to each investor on a fair basis dependent upon their submitted orders. (Cushing, Abstract).

Cushing computes an optimal price and then executes trades at the optimal price. In Cushing, the computed optimal price is the trade execution price. However, nothing in Cushing shows or suggests any sort of “minimize a difference,” as required by claim 1. At the least, the meaning of “minimize a difference” is that there are two figures and an effort is made to make the difference of the two figures as small as possible. In contrast, Cushing merely describes one price figure and executing trades at that price figure. Although the result of applicants’ claim 1 may be that the trade execution price and the reference price end up being the same, this single possible result is not what is claimed in claim 1. Rather, claim 1 requires “minimize a difference.” A result of applicants’ claim 1 may be that the trade execution price and the reference price are different in value. In short, Cushing does not show or suggest a “trade execution price [that] is calculated to minimize a difference between said reference price and said trade execution price,” as required in claim 1. In an attempt to find this feature in Cushing, the Examiner refers to Cushing, column 5, lines 30-40, and argues that “orders can be stated in terms of the current market.” (See Office Action, p.4). However, this portion in Cushing does not relate to trade execution prices at all. Rather, it relates to order prices: “the supplied price stated in priced orders, and the optional minimum/maximum transaction limit prices stated in unpriced orders” (Cushing, col.5, lines 30-40) (emphasis added). Because this portion in Cushing relates to order prices and not to trade execution prices, it does not show or suggest a “trade execution price [that] is calculated to minimize a difference between said reference price and said trade execution price,” as required in claim 1. In another attempt to show this feature in Cushing, the Examiner also refers to Cushing, column 10, lines 48-65, and argues that “modifications can be made to produce results with a range which is constrained or determined in part by the market.” (See Office Action, p.4). This portion of Cushing states that Cushing’s trade price computation algorithm “may be constrained to produce results within a certain range, such as within a bid-offer spread of the underlying primary market.” (Cushing, col.10, lines 48-65). However, producing a trade execution price that falls within a certain range does not show or suggest a reference price and a trade execution price and an attempt “to minimize a difference between said reference price and said trade execution price,” as required by claim 1. It is unclear whether the Examiner interprets an end-point of Cushing’s range constraint to be applicants’ reference price in claim 1. But in any case, Cushing does not show or suggest minimizing a difference between a range end-point and a trade execution price. Accordingly, applicants

submit that neither Shaw nor Cushing shows or suggests applicants' feature in claim 1 of "executing a trade comprising said first order and said second order at a trade execution price, wherein said trade execution price complies with said first price limit and said second price limit, and wherein said trade execution price is calculated to minimize a difference between said reference price and said trade execution price."

Additionally, applicants submit that the proposed combination of Shaw and Cushing must fail because the proposed combination would change the principle of operation of both Shaw and Cushing (see MPEP § 2143.01(VI)), and Shaw and Cushing both teach away from their combination (see MPEP § 2145(X)(D)(2)). Shaw states that:

Through several well established trading systems such as the Instinet Crossing Network (in excess of 35 million shares per day) and POSIT (in excess of 25 million shares per day), investors automatically trade millions of shares on an anonymous basis each day, and through new companies such as OptiMark, (assignee of U.S. Pat. No. 5,689,652 to Lupien et al. hereinafter referred to as the OptiMark System), investors have been given new ways to enter order data and greater flexibility in matching potential buyers with potential sellers.

These systems bring a number of advantages to investors, including the identification of counterparties and anonymity, but each also contains a common element: transactions are automatically executed when a match occurs. While this method of trading works well in most circumstances, it is not the most efficient method for trading large blocks of securities. These transactions are better handled through negotiated transactions that allow the parties to account for numerous other factors that become relevant when buying or selling a large block of securities. The above mentioned methods and systems fail to permit human involvement after a crossing network matches an order. (Shaw, p.1, ¶¶ [0003]-[0004]).

Thus, Shaw's principle of operation requires human involvement after a crossing network matches an order: "[w]hen a match occurs, each party and/or its authorized representative is given contact information for the other party and/or its authorized representative to facilitate negotiation of a final transaction." (Shaw, Abstract). In contrast, Cushing's principle of operation requires automatic execution of trades by computers:

Trades are executed at the optimal price, and portions of the transaction quantity are allocated to each investor on a fair basis dependent upon their submitted orders. In another aspect, the auction system includes a computer system and network designed to automatically perform one or more steps of the above method. Such a system is preferably connected to one or more ECNs such that non-executed shares can be automatically sent to outside sources for execution,

and connected to real time quote services to obtain current market information.
(Cushing, Abstract).

Because Shaw's principle of operation requires human involvement to execute a final transaction and Cushing's principle of operation requires computers to automatically execute a final transaction, the proposed combination of Shaw and Cushing changes the principle of operation of both references. According to MPEP § 2143.01(VI), "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." Additionally, "[i]t is improper to combine references where the references teach away from their combination." (MPEP § 2145(X)(D)(2)).

In view of the foregoing, applicants submit that independent claim 1 is patentable over Shaw or Cushing, individually or in combination. Claims 2-13 depend upon independent claim 1. The rejections of the dependent claims are traversed because "[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." (MPEP § 2143.03). Accordingly, applicants submit that claims 1-13 are allowable.

Although applicants believe that dependent claim 5 is allowable for the foregoing reasons, applicants additionally address the specific rejection of dependent claim 5 because applicants disagree with the reasoning for the rejection. Applicants' claim 5 includes all of the features of independent claim 1 and further requires "displaying said reference price to remotely located users by means of a graphic user interface." A reason for displaying applicants' reference price to a user is that users are wary of committing to a trade when they have no information about the execution price. There is a great deal of concern about experiencing "buyer's remorse" after an execution; traders worry that once they see their execution price they will feel that they could have gotten the trade at a better price. To address this issue, applicants' claim 5 avoids or mitigates "buyer's remorse" by providing users with the comfort of being able to see the reference price used to calculate an execution price. Because applicants' trade execution price is calculated to be as close to the reference price as the order price limits will allow, displaying the reference price to the user gives the user information that will decrease buyer's remorse. In contrast, applicants submit that the Cushing system could never publish or notify its users of the trade execution price they could expect for a particular security at a particular point in time. Cushing relates to pricing and execution designed to enable price

discovery. The point of Cushing's system is to collect a group of orders, and then to use an algorithm to determine an execution price specifically for that particular group of orders. (See Cushing, col. 2, lines 56-59, col. 3 28-30, and col. 4 lines 40-45). Cushing's system falls squarely into "buyer's remorse" because a user will not know what other orders are being used to calculate Cushing's optimal trading price. Thus, the user will suspect that he could have gotten a better price had the grouping of orders been different. Furthermore, there is nothing for Cushing's system to display to the user to address buyer's remorse because Cushing's system uses price discovery. Accordingly, applicants submit that Cushing does not show or suggest applicants' feature in claim 5 of "displaying said reference price to remotely located users by means of a graphic user interface."

Applicants' silence with respect to the particular rejections of dependent claims 2-4 and 6-13 should not be construed as a concession that the features of such claims are shown in the cited references. Rather, applicants' silence is based on the belief that the foregoing adequately traverses the rejections of these dependent claims. Applicants hereby reserve the right to specifically address and traverse the rejections of these dependent claims in the future.

Claims 14-19

Similar to independent claim 1, independent claim 14 recites, among other things:

14. A method for facilitating trading of securities over a computer system, comprising the steps of:
 - electronically notifying one or more users of a system accumulation period to receive orders in a security;
 - electronically receiving market data including prices for said security, and calculating a reference price based at least in part on said market data;
 - ...
 - at the expiration of said accumulation period, executing a trade comprising said first order and said second order at a trade execution price, wherein said trade execution price complies with said first price limit and said second price limit, and wherein said trade execution price is calculated to minimize a difference between said reference price and said trade execution price.

In the Office Action, claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Shaw in view of Cushing. (See Office Action, page 10). Applicants traverse this rejection for the following reasons. Independent claim 14 recites the same feature as claim 1 of "executing a trade comprising said first order and said second order at a trade execution price,

wherein said trade execution price complies with said first price limit and said second price limit, and wherein said trade execution price is calculated to minimize a difference between said reference price and said trade execution price.” As applicants showed in pages 8-10 of this paper, above neither Shaw nor Cushing shows or suggests this feature. Also, as applicants showed above in pages 10-11 of this paper, the proposed combination of Shaw and Cushing must fail because the proposed combination would change the principle of operation of both Shaw and Cushing (see MPEP § 2143.01(VI)), and Shaw and Cushing both teach away from their combination (see MPEP § 2145(X)(D)(2)).

For these reasons, applicants submit that independent claim 14 is patentable over Shaw or Cushing, individually or in combination. Claims 15-19 depend upon independent claim 14. The rejections of the dependent claims are traversed because “[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious.” (MPEP § 2143.03). Accordingly, applicants submit that claims 14-19 are allowable.

Applicants’ silence with respect to the particular rejections of dependent claims 15-19 should not be construed as a concession that the features of such claims are shown in the cited references. Rather, applicants’ silence is based on the belief that the foregoing adequately traverses the rejections of the dependent claims. Applicants hereby reserve the right to specifically address and traverse the rejections of the dependent claims in the future.

Claims 20-23

Claim 20 recites, among other things:

20. An electronic system for facilitating securities trading, comprising:
 - ... an execution engine in communication with said trade facilitation computer system,
 - wherein said execution engine is operative to execute a trade for a first order for a security and a second order for said security at a trade execution price, wherein said trade execution price complies with a first price limit of said first order and a second price limit of said second order, and wherein said trade execution price is calculated to minimize a difference between said trade execution price and a reference price for said security.

In the Office Action, claim 20 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Huttenlocher in view of Cushing. (See Office Action, p.13-14). Applicants traverse this rejection for the reasons below.

Neither Huttenlocher nor Cushing shows applicants' feature in claim 20 of "trade execution price complies with a first price limit of said first order and a second price limit of said second order and wherein said trade execution price is calculated to minimize a difference between said trade execution price and a reference price for said security." In page 13 of the Office Action, the Examiner recognized that Huttenlocher fails to show or suggest this feature of claim 20. The Examiner attempts to cure this deficiency in Huttenlocher by combining Huttenlocher with Cushing, but Cushing also fails to show or suggest this feature, as explained in pages 8-10 of this paper, above.

For these reasons, applicants submit that independent claim 20 is patentable over Huttenlocher or Cushing, individually or in combination. Claims 21-23 depend upon independent claim 20. The rejections of the dependent claims are traversed because "[i]f an independent claim is nonobvious under 35 U.S.C. 103, then any claim depending therefrom is nonobvious." (MPEP § 2143.03). Accordingly, applicants submit that claims 20-23 are allowable.

Applicants' silence with respect to the particular rejections of dependent claims 21-23 should not be construed as a concession that the features of such claims are shown in the cited references. Rather, applicants' silence is based on the belief that the foregoing adequately traverses the rejections of the dependent claims. Applicants hereby reserve the right to specifically address and traverse the rejections of the dependent claims in the future.

Traversal of Official Notice with Respect to Dependent Claims 3 and 13

Although applicants believe that dependent claims 3 and 13 are allowable for the foregoing reasons, applicants additionally address the specific rejections of dependent claims 3 and 13 because applicants disagree with the Official Notice for the rejections. In pages 9-10 of the Office Action:

Examiner takes official notice that since the invention of Shaw requires buyer and seller interaction once a match is made, it would be obvious to one of ordinary skill in the art at the time of the invention that it would not be possible or desirable for bidders to be able to constantly re-bid during a minimum time period

when the buyer and seller are reviewing the orders and the computer is performing a matching function. Thus, orders would need to be frozen for a period of time.

For the reasons discussed below, applicants traverse the Examiner's assertion of Official Notice.

Official Notice is used to assert "facts." (See MPEP § 2144.03(A)). In pages 9-10 of the Office Action, it appears that the alleged "fact" underlying the Examiner's official notice is that "it would not be possible or desirable for bidders to be able to constantly re-bid during a minimum time period when the buyer and seller are reviewing the orders and the computer is performing a matching function." Applicants disagree that this statement could be construed as a fact at all. But even if it could, applicants submit that the Examiner has asserted Official Notice without documentary support. Although the Examiner mentions Shaw in pages 9-10 of the Office Action, Shaw does not show anywhere that this "fact" is common knowledge or well known.

As MPEP § 2144.03(A) explains, "[it] would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known." (emphasis added). In the Office Action, the Examiner makes an assertion of Official Notice without citing any prior art reference to support the assertion. (See Office Action, pp.9-10). Applicants submit that the Examiner's assertion of Official Notice without documentary evidence is inappropriate because it is not capable of instant and unquestionable demonstration that applicants' features of allowing "said second user . . . to increase price aggression only after the expiration of a predetermined period of time" (claim 3) or having "said second user . . . receive[] said contra order notification only after a predetermined time period has lapsed" (claim 13) are old in the art.

Additionally, MPEP § 2144.03(A) also explains that "assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art." Applicants also submit that the Examiner's assertion of Official Notice without documentary evidence is inappropriate because systems and methods for electronic trading are areas of esoteric

technology in which “assertions of technical facts . . . must always be supported by citation to some reference work recognized as standard in the pertinent art.” (MPEP § 2144.03(A)).

Under MPEP § 2144.03(C), applicants may need to point out “why the noticed fact is not considered to be common knowledge or well-known in the art. Applicants submit that applicants’ claim features of allowing “said second user . . . to increase price aggression only after the expiration of a predetermined period of time” (claim 3) or having “said second user . . . receive[] said contra order notification only after a predetermined time period has lapsed” (claim 13) are not common knowledge or well-known in the art because applicants are not aware of any documents that describe these features outside of applicants’ own technology.

For all the foregoing reasons, applicants traverse the Examiner’s assertion of Official Notice. If the Examiner persists in asserting Official Notice, “the examiner must provide documentary evidence in the next Office action if the rejection is to be maintained. . . . If the examiner is relying on personal knowledge to support the finding of what is known in the art, the examiner must provide an affidavit or declaration setting forth specific factual statements and explanation to support the finding.” (MPEP § 2144.03(C)).

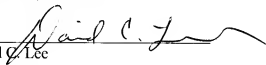
Conclusion

In view of the foregoing, applicants submit that claims 1-23 are allowable. Accordingly, reconsideration and allowance of these claims are respectfully requested.

No fee is believed due in connection with this Reply other than the Request for Continued Examination fee and extension of time fees provided in page 1 of this paper. If any other fee is due in connection with this paper, please charge such fee to Morgan, Lewis & Bockius LLP Deposit Account No. 50-0310.

Respectfully submitted,

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